associating spatial relationships with the customer data to determine additional information concerning purchases by the customer.

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- The method of Claim 31, wherein the additional information is found using data mining 32. techniques.
- The method of Claim 31, wherein the spatial relationships include the relative placement of 33. products within the retail space.
- The method of Claim 31 wherein the spatial relationships include customer paths through the 34. retail space associated with product placement within the retail space.
- The method of Claim 31, wherein the spatial relationships include customer paths through the 35. retail space associated with products purchased.
- The method of Claim 31, wherein the spatial relationships include data gathered from a remote 36. sensing system.
- The method of Claim \$1/wherein the information related to each customer includes demographic 37. information about individual customers gathered from a database.
- 38. The method of Claim 31, wherein the additional information is determined using data mining techniques.

A method for determining relationships of data associated with product placement in a retail pace, the method comprising the steps of:

generating data relationships using data mining techniques, wherein the data relationships associate individual customers with information related to the individual customers;

generating spatial relationships using data mining techniques, wherein the spatial relationships include relative placement of products within the retail space;

integrating the data relationships with the spatial relationships to determine additional information concerning purchases by the customers.



- 40. The method of Claim 39, wherein the spatial relationships further include associations of customer paths through the retail space with product placement within the retail space.
- 41. The method of Claim 39, wherein the spatial relationships further include associations with customer paths through the retail space with products purchased.
- 42. The method of Claim 39, wherein the spatial relationships further include associations of product placement within the retail space with products purchased.
- 43. The method of Claim 39, wherein the information related to the individual customers includes demographic information about the individual customers gathered from a database.
- 44. The method of Claim 39, wherein the additional information is determined using data mining techniques.
- 45. A data processing system for determining data relationships of data associated with product placement in a retail space, the data processing system comprising:

means for generating customer data by associating individual customers with information related to each customer using data mining techniques;

means for associating spatial relationships with the customer data to determine additional information concerning purchases by the customer.

- 46. The system of Claim 45, wherein the additional information is found using data mining techniques.
- 47. The system of Claim 45, wherein the spatial relationships include the relative placement of products within the retail space.
- 48. The system of Claim 45, wherein the spatial relationships include customer paths through the retail space associated with product placement within the retail space.
- 49. The system of Claim 45, wherein the spatial relationships include customer paths through the retail space associated with products purchased.

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- 50. The system of Claim 45, wherein the spatial relationships include data gathered from a remote sensing system.
- 51. The system of Claim 45, wherein the information related to each customer includes demographic information about individual customers/gathered from a database.
- 52. The system of Claim 45, wherein the additional information is determined using data mining techniques.
- A data processing system for determining data relationships of data associated with product placement in a retail space, the data processing system comprising:

first generating means for generating data relationships using data mining techniques, wherein the data relationships associate individual customers with information related to the individual customers;

second generating means for generating spatial relationships using data mining techniques, wherein the spatial relationships include relative placement of products within the retail space;

means for integrating the data relationships with the spatial relationships to determine additional information concerning purchases by the customers.

- 54. The system of Claim 53, wherein the spatial relationships further include associations of customer paths through the retail space with product placement within the retail space.
- The system of Claim 53, wherein the spatial relationships further include associations with customer paths through the retail space with products purchased.
- 56. The system of Claim 53, wherein the spatial relationships further include associations of product placement within the retail space with products purchased.
- 57. The system of Claim 53, wherein the information related to the individual customers includes demographic information about the individual customers gathered from a database.

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